



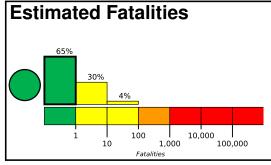


PAGER Version 5

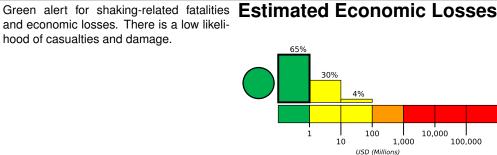
Created: 1 day, 0 hours after earthquake

M 4.3, 13km W of San Clemente Is. (SE tip), CA Origin Time: 2019-06-05 10:47:18 UTC (Wed 03:47:18 local) Location: 32.8228° N 118.4828° W Depth: 8.4 km

FOR TSUNAMI INFORMATION, SEE: tsunami.gov



and economic losses. There is a low likeli-



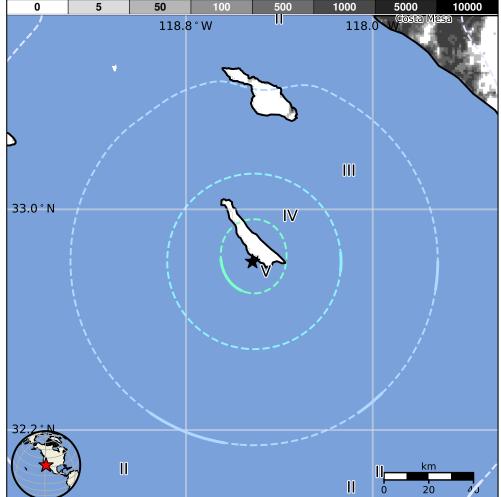
Estimated Population Exposed to Earthquake Shaking

| | POPULATION E (k=x1000) | 681k* | 810k | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------------------|---------------------------|----------|--------|-------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | 11-111 | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVE | SHAKING | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| DAMAGE | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

^{*}Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan



PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty. https://earthquake.usgs.gov/earthquakes/eventpage/ci38624056#pager

Structures

Overall, the population in this region resides in structures that are highly resistant to earthquake shaking, though some vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

| Date | Dist. | Mag. | Max | Shaking |
|------------|-------|------|------------|---------|
| (UTC) | (km) | | MMI(#) | Deaths |
| 1991-06-28 | 163 | 5.6 | VI(1,267k) | 1 |
| 2003-12-22 | 391 | 6.6 | VI(8k) | 2 |
| 1971-02-09 | 175 | 6.6 | IX(21k) | 65 |

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

| from GeoNames.org | | | | | |
|-------------------|-------------------|------------|--|--|--|
| MMI | City | Population | | | |
| Ш | Avalon | 4k | | | |
| II | San Joaquin Hills | 3k | | | |
| II | Dana Point | 33k | | | |
| II | Costa Mesa | 110k | | | |
| II | Aliso Viejo | 48k | | | |
| II | Laguna Beach | 23k | | | |
| II | Newport Beach | 85k | | | |
| II | Mission Viejo | 93k | | | |
| 1 | Oceanside | 167k | | | |
| 1 | Carlsbad | 105k | | | |
| 1 | Vista | 94k | | | |

bold cities appear on map.

(k = x1000)